Authors, Titles, and Subjects in the *Marine Fisheries Review* 48(1-4), 1986

A

Acanthophora, ciguatera studies, 4:48
Albacore
  Pacific Islands fisheries, 1:15-23
  U.S. tuna trade, 3:28-37
Aleut Indians, subsistence harvest of Northern fur seals, 1:10-14
Allmouth—see anglerfish, 3:50-53
Alteromonas and *Pseudomonas putrefaciens*, in ice-stored freshwater prawns, 2:46
Amphidinium carterae, photosynthetic complex, 4:46
Anchoa spp. (anchovy), potential Gulf product, 1:32
Anglerfish, length estimation, 3:50-53
Arius felis, Trawling Efficiency Device use, 1:1-9
Atlantic bumper, Trawling Efficiency Device use, 1:1-9
Atlantic cutlassfish, Trawling Efficiency Device use, 1:1-9
Atlantic threadfin, Trawling Efficiency Device use, 1:1-9

B

Babinchak, John A., David J. Jollow, Michael S. Voegtline, and Thomas B. Higerd, "Toxin Production by *Gambierdiscus toxicus* Isolated From the Florida Keys," 4:51
Babinchak, John A.—see Higerd et al.
Bacteria
  coliform, in seafood plant air, 3:42-45
  collagenolytic, in freshwater prawns, 2:46
  in ciguatera studies, 4:57
Ballantine, D. L.—see Tosteson et al.
Bardales, A. T.—see Tosteson et al.
Barnard, Geoffrey W.—see Nellis and Barnard
Barracuda, ciguatera studies, 4:14,23
Billfishes, fishing in Pacific Islands region, 1:15-23
Bolger, M.—see Wagstaff et al.
Booman, A., and R. Paul Singh, "A Mechanical Device to Sort Market Squid *Loligo opalescens*," 2:37
Brevoortia patronus
  Gulf resources and market, 1:32-36
  Trawling Efficiency Device use, 1:1-9
Bumper, Atlantic, Gulf resources and market, 1:32-36

C

Callorhinus ursinus, Northern fur seal
  Aleut subsistence harvest, 1:10-14
  Interim Convention on Conservation of North Pacific Fur Seals, 1:10
    observations, 1:10-12
    regulations, 1:10
  St. Paul Island population, 1:13
Carcharhinus falciformis, fishing operations in Pacific Islands region, 1:15-23
Carcharhinus longimanus, fishing operations in Pacific Islands region, 1:15-23
Caribbean Sea, ciguatera studies, 4:48
Catfish, hardhead, Trawling Efficiency Device use, 1:1-9
Caulerpa, ciguatera studies, 4:48
Ceratium furca, ciguatera toxin, 4:46
Cervimunida johni, key to species, 2:30
"Characterization of Proteolytic and Collagenolytic Psychrotropic Bacteria of Ice Stored Freshwater Prawn, *Macrobrachium rosenbergii*," by R. J. Premaratne, W. K. Nip, and J. H. Moy, 2:44
"The Chemical Nature of Scaritoxin," by Yong-Goe Joh and Paul J. Scheuer, 4:18
Chloroscombrus chrysurus
  Gulf resources and potential market, 1:32-36
  Trawling Efficiency Device use, 1:1-9
"Ciguatera: A Legal and Social Overview," by David W. Nellis and Geoffrey W. Barnard, 4:1
Ciguatera
  Acanthophora, 4:48
  Acanthurus sp., 4:48,53
  Amphidinium carterae, 4:46
  analysis of cases, 4:14
  bacterial strains, 4:57
  Barracuda, 4:14,23
  Caribbean, 4:48-52
  Caulerpa, 4:48
  Ceratium furca, 4:46
  comparative toxicity, 4:57
  Coolia sp., 4:38-42
  Ctenochaetus striatus, 4:33
  demographic characteristics, 4:15
  Dictyota, 4:48
  dinoflagellates, 4.2-59
  distribution of, 4:10,15,16
  economic implications, 4:14
  epidemiology, 4:6-13
  Epinephelus spp., 4:14
  fishery resource development, and, 4:6,11,12
  fishing industry, 4:2-5
  Florida Keys, 4:53
  Florida strains, 4:53
  folklore, 4:2
  Gambierdiscus toxicus
    photosynthetic pigment, identification, 4:44-46
    thecal analysis, 4:38-41
  Glenodinium sp., 4:46
  Gonyaulax polyedra, 4:46
  grouper, 4:14
  Halimeda, 4:48
  Hawaiian strains, 4:53
  Health associated problems, 4:6,11,12
  Heterocapsa spp., 4:46
  high performance liquid chromatography (HPLC), 4:23-26,29-33,53
  history, 4:6,8,9
  hogfish, 4:14
  HPLC, 4:23-26,29-33,53
  identification, 4:14,23-34,44-47
  impact in Pacific Region, 4:10-12
  incidence of, 4:6-10
  infected species, 4:9
  kingfish, 4:23
Ciguatera (continued)
  Labridae, 4:14
  Laurencia spp., 4:
  legal considerations, 4:3
  macroalgal hosts, 4:48,57
  Menticirrhus sp., 4:23
  mortality, 4:7,14
  mouse bioassay, 4:
  Nocardiaceae, 4:57,59
  nutrition implications, 4:6,11,12
  Ostreopsis lenticularis, 4:23,26,27,38,39,42,54, 57-59
  Peridinium balticum, 4:46
  Prorocentrum cassubicum, 4:46
  Pseudomonadaceae, 4:57,59
  Puerto Rico, 4:14-22
  response of mice to, 4:35-37
  Scarus gibbus, 4:22
  Scarus sordidus, 4:21,22
  social overview, 4:2-5
  Sphyraena barracuda, 4:14,23
  surgeonfish, 4:33,53
  symptoms, 4:2,10,15-17,48
  test procedure, 4:2,3,5
  thecal analysis of *G. toxicus*, 4:38-41
  Thin-layer chromatography (TLC), 4:44-46
  toxic components, 4:48-51,58
  toxicity assay, 4:58
  Vibrionaceae, 4:57,59
"Comparative Toxicity of *Gambierdiscus toxicus*, *Ostropsis* cf. *lenticularis*, and Associated Microflora," by T. R. Tosteson, D. L. Ballantine, C. G. Tosteson, A. T. Bardales, H. D. Durst, and T. B. Higerd, 4:57
Coliform bacteria—see bacteria
Conservation—see Habitat conservation efforts
Cod, Atlantic
  dimethylamine production, 3:38,40
  flavor, 3:38,39
  hypoxanthine, 3:38,40
  irradiation, 3:38,41
  potassium sorbate, 3:38-41
  preservation treatments, 3:38-41
  texture, 3:38,39
  trimethylamine production, 3:38-40
Collagenolytic—see bacteria
Conrath, S.—see Wagstaff et al.
Coolia, ciguatera studies, 4:38,42
Crabmeat, Kamaboko substitution, 4:62
Crab plants, air quality of
  assessment, 3:42-45
  coliform bacteria, 3:42,44,45
  mold, 3:42,44,45
  yeast, 3:42,44,45
Creaser, Edwin P., and Kerry M. Lyons, "Estimating Total Length of Headless White Hake, *Urophycis tenuis*, Landed in Maine," 3:46
Creaser, Edwin P.—also see Lyons and Creaser
Croaker, surimi production in Japan, 4:61
Croaker, Atlantic, Trawling Efficiency Device use, 1:1-9
Ctenochaetus striatus, ciguatera studies, 4:33
Culture, Pacific salmon pen-rearing, 1:24-31
Cynoscion, Trawling Efficiency Device use, 1:1-9
Cytophaga, in iced freshwater prawns, 2:46

D

Data sources, U.S. fish consumption, 3:20-23
Decapturus spp., Gulf resources and markets, 1:32-36
D'Entremont, D. L.—see Licciardello et al.
Dictyota, ciguatera studies, 4:48
Dinoflagellates, ciguatera studies, 4:1-59
Doulman, David J., "The Tuna Industry in the Pacific Islands Region: Opportunities for Foreign Investment," 1:15
Durst, H. D.—see Tosteson et al.

E

Ecology, see Habitat conservation efforts, 3:1-8
"Economic Aspects of the Japanese Kamaboko Industry," by Myles Raizin and Lloyd Regier, 4:60
Economic studies
  ciguatera implications, 4:14
  Japanese Kamaboko industry, 4:60-64
  Louisiana shrimp industry, 4:65-70
  swordfish, U.S. market resurgence, 3:28-37
  tuna industry investment in Pacific Islands region, 1:15-23
  tuna trade summary, U.S. (1984), 3:28-37
El Niño
  effect on (U.S.) tuna fishery, 3:28-37
  effects on squid market, 2:38
Environmental studies
  habitat conservation efforts, 3:1-8
  inshore environmental effects on *Penaeus* spp., 3:9-19
  microbiological air quality assessment of seafood plants, 3:42-45
"Epidemology and Impact of Ciguatera in the Pacific: A Review," by Nancy Davis Lewis, 4:6
Epinephelus spp., ciguatera studies, 4:14
Escalona de Motta, G., J. F. Feliu, and A. Izquierdo, "Identification and Epidemiological Analysis of Ciguatera Cases in Puerto Rico," 4:14
"Estimating Total Length of Headless Anglerfish, *Lophius americanus*, Landed in Maine," by Kerry M. Lyons and Edwin P. Creaser, 3:50
"Estimating Total Length of Headless White Hake, *Urophycis tenuis*, Landed in Maine," by Edwin P. Creaser and Kerry M. Lyons, 3:46
Etrumeus teres, Gulf resources and markets, 1:32-36
EEZ's—see Exclusive Economic Zones, 1:15,17, 21,22
Euthynnus pelamis, U.S. tuna trade summary, 3:28-37
Exclusive Economic Zones
  impact on Japanese Kamaboko industry, 4:62
  tuna industry in the Pacific Islands region, 1:15-23

F

Feliu, J. F.—see Escalona de Motta et al.
Felton, Edwin T.—see Kelley et al.
Finfish, Gulf
  incidental catch, 1:1
  fish:shrimp weight ratios, 1:3-7
Fish consumption, U.S.
  data sources, 3:20-23
  environmental contamination, 3:20
  fish production data, 3:21
  human diet, 3:20
  national food intake survey, 3:21
  nutritional properties, 3:20
  per capita consumption, 3:20
Fisheries, lobster
  annual catch, 2:1,2
  major world fishing areas, 2:1-4
Fishery, commercial
  exploitable populations of small pelagic fishes, 1:32-36
  sardines, canned, potential market, 1:32-36
  squid, market, sorting device, 2:37-43
    processing costs, 2:37,38
    packing, 2:38
  swordfish, U.S. market resurgence, 3:24-27
  tuna, Pacific Islands region
    development, 1:15-23
    fishing fleet operations, 1:15,16
    investment opportunities, 1:15-23
    processing facilities, 1:15-23
Fishery, recreational, pen-reared salmon, 1:24
Flavobacterium, bacteria in iced freshwater prawns, 2:44-47
Florida Keys, ciguatera studies, 4:53-55

G

Gadus morhua, preservation treatments
  dimethylamine production, 3:38,40
  flavor, 3:38,39
  hypoxanthine, 3:38,40
  irradiation, 3:38-41
  potassium sorbate, 3:38-41
  preservation, 3:38-41
  texture, 3:38,39
  trimethylamine production, 3:38,39
Galatheidae, key to species of squat lobsters, 2:30
Gambierdiscus toxicus (also see ciguatera), 4:1-59
"*Gambierdiscus toxicus* From the Caribbean: A Source of Toxins Involved in Ciguatera," by Joseph P. McMillan, Patricia A. Hoffman, and H. Ray Granade, 4:46
Glenodinium polyedra, ciguatera toxin, 4:46
Goosefish—see Anglerfish
Granade, H. Ray—see McMillan et al.
Green, Roger E.—see Leet et al.
Grouper, ciguatera studies, 4:14
Gulf butterfish, Trawling Efficiency Device use, 1:1-9

H

Habitat conservation efforts
  alterations, 3:1,3,6
  creation, 3:3
  draining, 3:5
  dredging, 3:3
  filling, 3:4
  fishery resources, 3:1
  habitat alteration, 3:1,3,6
  habitat creation, 3:3
  impounding, 3:5
  mitigation, 3:1,5
  NMFS efforts in S.E. region, 3:1-8
  wetlands, 3:1,2,4
Hackley, B.—see Wagstaff et al.
Hake, white
  fishery, 3:46
  length estimations, 3:46-49
  species identification, 3:47
  statistical analysis, length, 3:48
Halimeda, ciguatera studies, 4:48
Harengula jaguana
  potential market, 1:32
  Trawling Efficiency Device use, 1:1-9
Herrick, Samuel F., Jr., and Steven J. Koplin, "U.S. Tuna Trade Summary, 1984," 3:28
Herring
  Atlantic thread, potential market, 1:32
  round, potential market, 1:32
Heterocapsa spp., ciguatera toxin, 4:46
Higerd, T. B.—see Tosteson et al.
Higerd, Thomas B., John A. Babinchak, Paul J. Scheuer, and David J. Jollow, "Resolution of Ciguatera-Associated Toxins Using High-Performance Liquid Chromatography (HPLC)," 4:22
Higerd, Thomas B.—see Babinchak et al.
Higerd, Thomas B.—see Kelley et al.
High-Performance Liquid Chromatography (HPLC), 4:23-26,29-33,53
Hippoglossus hippoglossus, fishery, 3:49
Hoffman, Patricia—see McMillan et al.
Hogfish, ciguatera studies, 4:14
Homarus americanus, identification, world distribution, and U.S. trade, 2:4,5
Homarus gammarus, key to species, 2:8
Hopson, Debra J. O.—see Ward and Hopson
Horseshoe crabs, Trawling Efficiency Device use, 1:1-9
"An HPLC-Fluorescence Method For Identifying a Toxic Fraction Extracted From the Marine Dinoflagellate *Gambierdiscus toxicus*," by L. V. Sick, D. C. Hansen, J. A. Babinchak, and T. B. Higerd, 4:28
HPLC—see High-Performance Liquid Chromatography

I

Ibacus ciliatus, key to species, 2:26
Ibacus novemdentatus, 2:8,26
"Identification and Epidemiological Analysis of Ciguatera Cases in Puerto Rico," by E. Escalona de Motta, J. F. Feliu, and A. Izquierdo, 4:13
"Identification of the Photosynthetic Pigments of the Tropical Benthic Dinoflagellate *Gambierdiscus toxicus*," by Stephen R. Indelicato and David A. Watson, 4:42
Illex illecebrosus, 2:38,39
"Impact of U.S. Wholesale Demand for Canned Sardines on Market Accessibility of Potential Gulf of Mexico Products," by Myles Raizin and Lloyd Regier, 1:32
Indelicato, Stephen R., and David A. Watson, "Identification of the Phytosynthetic Pigments of the Tropical Benthic Dinoflagellate *Gambierdiscus toxicus*," 4:42
Indelicato, Stephen R.—see Loeblich and Indelicato
"Inshore Environmental Effects of Brown Shrimp, *Penaeus aztecus*, and White Shrimp, *P. setiferus*, Populations in Coastal Waters, Particularly of Texas," by Zoula P. Zein-Eldin and Maurice L. Renaud, 3:9
Interim Convention on Conservation of North Pacific Fur Seals
  subsistence harvest, 1:10-12
  regulations, 1:10
Irradiation (cod preservation), 3:38-41
"Irradiation and Potassium Sorbate Compared as Preservative Treatments for Atlantic Cod, *Gadus morhua*," by J. J. Licciardello, E. M. Ravesi, and D. L. D'Entremont, 3:38
Istiophorus orientalis, fishing operations in Pacific Islands region, 1:15-23
Isurus oxyrinchus, fishing operations in Pacific Islands region, 1:15-23
Izquierdo, A.—see Escalona de Motta, G. et al.

J

Jasus, key to species, 2:4,12
Jasus edwardsii, key to species, 2:13
Jasus frontalis, key to species, 2:13
Jasus lalandei, key to species, 2:12
Jasus novaehollandiae, key to species 2:13
Jasus paulensis, key to species, 2:14
Jasus tristani, key to species, 2:14
Jasus verreauxi, key to species, 2:12
Jellyfish, cannonball, Trawling Efficiency Device use, 1:1-9
Joh, Yong-Goe, and Paul J. Scheuer, "The Chemical Nature of Scaritoxin," 4:18
Jollow, David J.—see Babinchak et al.
Jollow, David J.—see Higerd et al.
Jollow, David J.—see Kelley et al.

K

Kamaboko
  economic aspects of Japanese industry, 4:60-64
  manufacture of, 4:60-64
Katsuwonus pelamis, fishing operations in Pacific Islands region, 1:15-23
Kelley, Bonnie A., David J. Jollow, Edwin T. Felton, Michael S. Voegtline, and Thomas B. Higerd, "Response of Mice to *Gambierdiscus toxicus* Toxin," 4:34
Kensaki ida, 2:38
Kingfish, ciguatera studies, 4:23
Koplin, Steven J.—see Herrick and Koplin

L

Labridae, ciguatera studies, 4:14
Laurencia, ciguatera studies, 4:48
Leet, William S., Roger E. Green, and Daniel Ralph, "Pen Rearing Pacific Salmon, *Oncorhynchus* spp., in San Francisco Bay," 1:24
Leiostomus xanthurus, Trawling Efficiency Device use, 1:1-9
Letcher, James D.—see Zimmerman and Letcher
Lewis, Nancy Davis, "Epidemology and Impact of Ciguatera in the Pacific: A Review," 4:5
Licciardello, J. J., E. M. Ravesi, and D. L. D'Entremont, "Irradiation and Potassium Sorbate Compared as Preservative Treatments for Atlantic Cod, *Gadus morhua*," 3:38
Limulus sp., Trawling Efficiency Device use, 1:1-9
Linuparus, key to species, 2:11,14
Linuparus somniosus, key to species, 2:14
Linuparus sordidus, key to species, 2:14
Linuparus trigonus, key to species 2:7,14
Lipton, Douglas W., "The Resurgence of the U.S. Swordfish Market," 3:24
Lizardfish, surimi production in Japan 4:61
Lobster, American, key to tail, 2:8
Lobster, clawed, key to tail, 2:8
Lobster, flat, key to species, 2:26
Lobster, locust, key to species, 2:26
Lobster, shovel-nosed, key to species, 2:26
Lobster, slipper, key to species, 2:26
Lobster, Spanish, key to species, 2:26
"Lobsters—Identification, World Distribution, and U.S. Trade," by Austin B. Williams, 2:1
Lobsters, spiny, key to genera, 2:10
Loeblich, Alfred R. III, and Stephen R. Indelicato, "Thecal Analysis of the Tropical Benthic Dinoflagellate *Gambierdiscus toxicus*," 4:37
Loligo bleekeri, 2:38
Loligo edulis, 2:38
Loligo opalescens
  fishery, 2:37
  mechanical device for sorting, 2:39
  packing, 2:38
  processing costs, 2:37-38
  sorting, 2:37,41
Longlining, Pacific Islands region tuna industry, 1:15-23
Lophius americanus
  fishery, 3:49-51
  length estimations, 3:50-53
Louisiana shrimp industry, 4:65-70
Lyons, Kerry M., and Edwin P. Creaser, "Estimating Total Length of Headless Anglerfish, *Lophius americanus*, Landed in Maine," 3:50
Lyons, Kerry M.—see Creaser and Lyons

M

Macroalgae, ciguatera studies, 4:48,57
Mackerel, Atka, Japan's surimi production, 4:61
Mackerel, Jack, Japan's surimi production, 4:61
Mackerel, Spanish, Japan's Trawling Efficiency Device use, 1:1-9
Macrobrachium rosenbergii, bacteria in iced storage
  Alteromonas putrefaciens, 2:46
  collagenolytic bacteria, 2:46
  Cytophaga, 2:46
  flavobacterium, 2:46
  proteolytic bacteria, 2:46
  Pseudomonas putrefaciens, 2:46
  Pseudomonas Type I, 2:46
  Pseudomonas Type II, 2:46
Mager, Andreas, Jr., and Gordon W. Thayer, "National Marine Fisheries Service Habitat Conservation Efforts in the Southeast Region of the United States From 1981 Through 1985," 3:1
Makaira marlina, fishing operations in Pacific Islands region, 1:15-23
Makaira nigricans, fishing operations in Pacific Islands region, 1:15-23
Marketing studies, Louisiana shrimp industry, 4:65-70
McMillan, Joseph P., Patricia A. Hoffman, and H. Ray Granade, "*Gambierdiscus toxicus* From the Caribbean; A Source of Toxins Involved in Ciguatera," 4:46
Meaburn, M.—see Wagstaff et al.
"A Mechanical Device to Sort Market Squid, *Loligo opalescens*," by A. Booman and R. Paul Singh, 2:37
Menhaden, Gulf
  potential market, 1:32
  Trawling Efficiency Device use, 1:1-9
Menticirrhus sp., ciguatera studies, 4:23
Metanephrops andamanicus, key to species, 2:9
Metanephrops binghami, key to species, 2:10
Metanephrops rubellus, key to species, 2:10
"Microbiological Air Quality Assessment of Seafood Plants as Impacted by Solid Waste," by Donn R. Ward and Debra J. O. Hopson, 3:42
Micropogon undulatus, Trawling Efficiency Device use, 1:1-9
Mitchell, John F.—see Watson et al.
Mold, seafood plant air quality, 3:42,44,45
Molligut—see Anglerfish
Monkfish—see Anglerfish
Moy, J. H.—see Premaratne et al.

N-O

National Health and Nutrition Examination Survey, 3:20-23
"National Marine Fisheries Service Habitat Conservation Efforts in the Southeast Region of the United States From 1981 Through 1985," by Andreas Mager, Jr. and Gordon W. Thayer, 3:1
Nellis, David W., and Geoffrey W. Barnard, "Ciguatera: A Legal and Social Overview," 4:1
Nephropidae, 2:8
Nephrops norvegicus, key to species, 2:8
Nephropsis, key to species, 2:9
Nephropsis aculeata, key to species, 2:9
NHANES I, II (National Health and Nutrition Examination Survey), 3:20-23
Nip, W. K.—see Premaratne et al.
Nocardiaceae, ciguatera studies, 4:57,59
Opisthonema oglinum, potential market, 1:32
Ostreopsis lenticularis, ciguatera studies, 4:23, 26,27,54,57-59

P

Pacific Islands region tuna industry
  development, 1:15-23
  investment opportunities, 1:15-23
Pacific region, ciguatera review, 4:2
Palinuridae, 2:10
Palinurus, key to species, 2:12,15
Palinurus charlestoni, key to species, 2:16
Palinurus delagoae, key to species, 2:15
Palinurus elephas, key to species, 2:16
Palinurus gilchristi, key to species, 2:15
Palinurus mauritanicus, key to species, 2:16
Panulirus, key to species, 2:11,12,17
Panulirus argus, key to species, 2:19
Panulirus cygnus, key to species, 2:18
Panulirus echinatus, key to species, 2:20
Panulirus gracilis, key to species, 2:24
Panulirus guttatus, key to species, 2:19
Panulirus homdrus, key to species, 2:17
Panulirus inflatus, key to species, 2:22
Panulirus interruptus, key to species, 2:21
Panulirus japonicus, key to species, 2:18,19
Panulirus laevicauda, key to species, 2:22
Panulirus longipes, key to species, 2:7
Panulirus marginatus, key to species, 2:20
Panulirus ornatus, key to species, 2:22
Panulirus pascuensis, key to species, 2:18,19
Panulirus penicillatus, key to species, 2:18
Panulirus polyphagus, key to species, 2:23
Panulirus regius, key to species, 2:21,24
Panulirus stimpsoni, key to species 2:20
Panulirus versicolor, key to species, 2:23
Paralithodes camtschatika, Kamaboko industry in Japan, 4:62
Parribacus antarcticus, key to species, 2:27
Pawlyk, Perry W., and Kenneth J. Roberts, "Products and Markets for Small Louisiana Shrimp," 4:65
Penaeus aztecus, environmental effects on
  biological responses, 3:9-12
  ecological factors, 3:9-14
  environmental parameters, 3:9-14
Penaeus setiferus, environmental effects on
  biological responses, 3:9-12
  ecological factors, 3:9-14
  environmental parameters, 3:9-14
  juveniles, 3:12-16
  postlarvae, 3:12-16
Penaeid shrimp, Trawling Efficiency Device use, 1:1-9
Pen-rearing of Pacific salmon, 1:24-31
  disease, 1:26,27
  environment, 1:25
  management, 1:24
  procedures, 1:25
"Pen Rearing Pacific Salmon, *Oncorhynchus* spp., in San Francisco Bay," by William S. Leet, Roger E. Green, and Daniel Ralph, 1:24
Peprilus burti, Trawling Efficiency Device use, 1:1-9
Peridinium balticum, ciguatera toxin, 4:46
Pleurogrammus monopterygius, surimi production in Japan, 4:61
Pleuroncodes, key to species, 2:31
Pleuroncodes monodon, key to species, 2:30
Pole-and-line Pacific Islands tuna industry, 1:21
Pollock, walleye, surimi manufacture, 4:60
Polydactylus octonemus, Trawling Efficiency Device use, 1:1-9
Potassium sorbate and Atlantic cod, 3:38-41
Prawn, freshwater, iced storage
  Alteromonas putrefaciens, 2:46
  bacteria, 2:44-47
  collagenolytic bacteria, 2:44-47
  cytophaga, 2:46
  flavobacterium, 2:46
  proteolytic bacteria, 2:46
  Pseudomonas putrefaciens, 2:46
  Pseudomonas Type I, 2:46
  Pseudomonas Type II, 2:46
Premaratne, R. J., W. K. Nip, and J. H. Moy, "Characterization of Proteolytic and Collagenolytic, Psychrotropic Bacteria of Ice-Stored Freshwater Prawn, *Macrobrachium rosenbergii*," 2:44
Preservation studies
  cod, Atlantic, 3:38-41
  prawns, freshwater, 2:44-47
Prionace glauca, in Pacific Islands region fishery, 1:15-23
Processing studies
  microbiological air quality assessment of seafood plants, 3:42-45
  squid, market, 2:37-43
"Products and Markets for Small Louisiana Shrimp," by Perry W. Pawlyk and Kenneth J. Roberts, 4:65
Prorocentrum cassubicum, ciguatera toxin, 4:46
Proteolytic bacteria, freshwater prawns, 2:44-47
Pseudomonadaceae, ciguatera studies, 4:57,59
Pseudomonas and *Alteromonas putrefaciens*, in ice-stored freshwater prawns, 2:46
Pseudomonas Type I, 2:44-47
Pseudomonas Type II, 2:44-47
Puerulus, key to species, 2:11,24

Puerulus angulatus, key to species, 2:25
Puerulus carinatus, key to species, 2:25
Puerulus sewelli, key to species, 2:25
Puerulus velutinus, key to species, 2:24
Purse seining, Pacific Islands tuna industry, 1:15-23

R

Raizin, Myles, and Lloyd Regier, "Economic Aspects of the Japanese Kamaboko Industry," 4:60
Ralph, Daniel—see Leet et al.
Ravesi, E. M.—see Licciardello et al.
Regier, Lloyd—see Myles and Regier
Renaud, Maurice L.—see Zein-Eldin and Renaud
"Resolution of Ciguatera-Associated Toxins using High-Performance Liquid Chromatography (HPLC)," by Thomas B. Higerd, John A. Babinchak, Paul J. Scheuer, and David J. Jollow, 4:22
"Response of Mice to *Gambierdiscus toxicus* Toxin," by Bonnie A. Kelley, David J. Jollow, Edwin T. Felton, Michael S. Voegtline, and Thomas B. Higerd, 4:34
"The Resurgence of the U.S. Swordfish Market," by Douglas W. Lipton, 3:24
Roberts, Kenneth J.—see Pawlyk and Roberts

S

Salmon, Pacific
  Chinook, pen-rearing, 1:24-31
  Coho, pen-rearing, 1:24-31
Saltwater net-pen culture, Pacific salmon, 1:24-31
  diet, 1:26,27
  disease, 1:26,27
  environment, 1:25
  fishery, 1:24
  growth, 1:28
  management, 1:24
  migration, 1:24
  mortality, 1:28
  procedures, 1:25-26
  tagging, 1:26,28-30
Sardine, scaled
  potential market, 1:32-36
  Trawling Efficiency Device use, 1:1-9
Sardine, Spanish
  exploitable resources, 1:32,36
  potential market, 1:32,36
    canning, 1:32,33,36
    demand, 1:32,34-36
    economic model, 1:33-35
    importers, 1:32,35
    industry structure, 1:32,33
    price analysis, 1:33-36
    producers, 1:33-36
Sardinella aurita, potential markets, 1:32-36
Scad, potential market, 1:32
Scaritoxin, ciguatera studies, 4:18
Scarus gibbus, ciguatera studies, 4:22
Scarus sordidus, ciguatera studies, 4:21,22
Scheuer, Paul J.—see Higerd et al.
Scheuer, Paul J.—see Joh and Scheuer
Sciaenidae, surimi production in Japan, 4:61
Scomberomorus maculatus, Trawling Efficiency Device use, 1:1-9
Scyllaridae, key to genera, 2:26
Scyllarides, key to species, 2:26
Scyllarides aequinoctialis, key to species, 2:29
Scyllarides astori, key to species, 2:30
Scyllarides brasiliensis, key to species, 2:27
Scyllarides deceptor, key to species, 2:27
Scyllarides delfosi, key to species, 2:29
Scyllarides elisabethi, key to species, 2:29
Scyllarides haanii, key to species, 2:8,27
Scyllarides herklotsii, key to species, 2:28
Scyllarides latus, key to species, 2:30
Scyllarides nodifer, key to species, 2:28,29
Scyllarides roggeveeni, key to species, 2:30
Scyllarides squammosus, key to species, 2:28
Scyllarides tridacnophaga, key to species, 2:28
Seafood waste disposal air quality assessment, 3:42-45
"The 1985 Subsistence Harvest of Northern Fur Seals, *Callorhinus ursinus*, on St. Paul Island, Alaska," by Steven T. Zimmerman and James D. Letcher, 1:10
Seal, Northern fur
  Interim Convention on Conservation of North Fur Seals, 1:10
  observations, 1:10-12
  regulations, 1:10
  St. Paul Island population, 1:13
  subsistence harvest (1985), Aleut, 1:10-14
  dietary requirements, 1:10
  methods, 1:10-11
  per capita consumption, 1:11
  preservation, 1:11
Seatrout, Trawling Efficiency Device use, 1:1-9
Shah, Arvind K.—see Watson et al.
Sharks, fishing operations in Pacific Islands region, 1:15-23
Shrimp, brown, environmental effects on
  biological responses, 3:9-12
  ecological factors, 3:9-14
  environmental parameters, 3:9-14
  juvenile, 3:12-14
  postlarval, 3:12-14
Shrimp, Louisiana industry
  employment, 4:66
  firms, 4:66-70
  markets, 4:65,67-70
  products, 4:65,67-70
Shrimp, penaeid, Trawling Efficiency Device use, 1:1-9
Shrimp, white, environmental effects on
  biological responses, 3:9-12
  ecological factors, 3:9-14
  environmental parameters, 3:9-16
  juvenile, 3:12-16
  postlarval, 3:12-16
Sick, L. V., D. C. Hansen, J. A. Babinchak, and T. B. Higerd, "An HPLC-Fluorescence Method for Identifying a Toxic Fraction Extracted from the Marine Dinoflagellate *Gambierdiscus toxicus*," 4:28
Singh, R. Paul—see Booman and Singh
Sponges, Trawling Efficiency Device use, 1:1-9
Spot, Trawling Efficiency Device use, 1:1-9
Squid, market
  fishery, 2:37
  mechanical device for sorting, 2:39
  packing, 2:38
  processing costs, 2:37,38
  sorting, 2:37,38,41
  tentacle:mantle length ratios, 2:39,41,42
"Status of Data Sources on Fish Consumption in the United States," by D. J. Wagstaff, M. Meaburn, M. Bolger, S. Conrath, and B. Hackley, 3:20
Stemolophus sp., Trawling Efficiency Device use, 1:1-9
Surgeonfish, ciguatera studies, 4:33,53
Surimi
  economic aspects of Japanese kamaboko industry, 4:60-64
  manufacture of, 4:60-64
Surume ika, 2:38
Swordfish, U.S. market resurgence, 3:24
  consumption per capita, 3:25
  demand, 3:26
  domestic, 3:24
  fishery, 3:24
  imported, 3:24
  prices, 3:25
  world market, 3:25
Synodus luciopceps, surimi production in Japan, 4:61

T

TED—see Trawling Efficiency Device
TLC—see Thin-layer chromotraphy, 4:44-46
Tagging, pen-reared Pacific salmon
  Carlin tagged, 1:26-28-30
  freeze branded, 1:26
  plastic dart tags, 1:26
Thayer, Gordon W.—see Mager, Jr., and Thayer
"Thecal Analysis of the Tropical Benthic Dinoflagellate *Gambierdiscus toxicus*," by Alfred R. Loeblich III and Stephen R. Indelicato, 4:37
Thenus orientalis, key to species, 2:26
Thunnus alalunga
  Pacific Islands, fisheries, 1:15-23
  U.S. tuna trade summary, 3:28-37
Thunnus albacares
  Pacific Islands fisheries, 1:15-23
  U.S. tuna trade summary, 3:28-37
Thunnus atlanticus, U.S. tuna trade, 3:28-37
Thunnus obesus
  Pacific Islands fisheries, 1:15-23
  U.S. tuna trade summary, 3:28-37
Thunnus thynnus, U.S. tuna trade summary, 3:28-37
Todarodes pacificus, 2:38
Tosteson, C. G.—see Tosteson et al.
Tosteson, T. R., D. L. Ballantine, C. G. Tosteson, A. T. Bardales, H. D. Durst, and T. B. Higerd, "Comparative Toxicity of *Gambierdiscus toxicus*, *Ostreopsis* cf. *lenticularis*, and Associated Microflora," 4:55
"Toxin Production by *Gambierdiscus toxicus* Isolated From the Florida Keys," John A. Babinchak, David J. Jollow, Michael S. Voegtline, and Thomas B. Higerd, 4:51
Toxin studies, ciguatera studies, 4:2-59
Trachurus symmetricus, surimi production in Japan, 4:61
"Trawling Efficiency Device: A New Concept for Selective Shrimp Trawling Gear," by John W. Watson, John F. Mitchell, and Arvind K. Shah, 1:1
Trawls, shrimp
  panel-type, 1:1
  selective development
    Europe, 1:1
    NW U.S., 1:1
    Canada, 1:1
  Trawling Efficiencyiey Device, 1:1-9
Trichiurus lepturus, Trawling Efficiency Device use, 1:1-9
Tuna, U.S. trade summary
  albacore fishery, 3:30,31
  catch, 3:28-37
  consumption, 3:32,35
  exports, 3:29,30,33,35
  foreign, 3:30
  imports, 3:29,32-35
  market, 3:37
  prices, 3:31,32,34
  production, 3:30,31
  supply of canned tuna, 3:28
  tropical tuna industry, 3:32,37
Tuna, albacore—see albacore
Tuna, big-eye
  Pacific Islands fisheries, 1:15-23
  U.S. trade summary, 3:28-37
Tuna, blackfin, U.S. trade summary, 3:28-37
Tuna, bluefin, U.S. trade summary, 3:28-37
Tuna, skipjack
  Pacific Islands fisheries, 1:15-23
  U.S. trade summary, 3:28-37
Tuna, yellowfin
  Pacific Islands, fisheries, 1:15-23
  U.S. trade summary, 3:28-37
Tuna industry, Pacific Islands Region 1:15-23
  development, 1:19
  exclusive economic zones, 1:15

Tuna industry, Pacific Islands (continued)
fishery, 1:15-23
government objectives, 1:19,20
investment opportunities, 1:20
processing facilities, 1:22
transshipment facilities 1:21,22
"The Tuna Industry in the Pacific Islands Region: Opportunities for Foreign Investment," by David J. Doulman, 1:15
Tuna trade summary, U.S. 1984, 3:28-37

U-V

Urophycis tenuis
fishery, 3:46
length estimations, 3:46-49
species identification, 3:47
statistical analysis, 3:48
"U.S. Tuna Trade Summary, 1984," by Samuel F. Herrick, Jr., and Steven J. Koplin 3:28-37
Vibrionaceae, ciguatera studies, 4:57,59
Voegtline, Michael S.—see Babinchak et al.
Voegtline, Michael S.—see Kelley et al.

W

Wagstaff, D. J., M. Meaburn, M. Bolger, S. Conrath, and B. Hackley, "Status of Data Sources on Fish Consumption in the United States," 3:20
Ward, Donn R., and Debra J. O. Hopson, "Microbiological Air Quality Assessment of Seafood Plants as Impacted by Solid Waste," 3:42
Watson, David A.—see Indelicato and Watson
Watson, John W., John F. Mitchell, and Arvind K. Shah, "Trawling Efficiency Device: A New Concept for Selective Shrimp Trawling Gear," 1:1
Williams, Austin B., "Lobsters-Identification, World Distribution, and U.S. Trade," 2:1

X-Y-Z

Xiphias gladius, U.S. market
consumption per capita, 3:25
demand, 3:26
domestic, 3:24
fishery, 3:24
fishing operations in the Pacific Islands region, 1:15-23
imported, 3:24
prices, 3:25
resurgence in market, 3:24-27
Yari ika, 2:38
Yeast, seafood plants air quality, 3:42,44, 45
Zein-Elden, Zoula P., and Maurice Renaud, "Inshore Environmental Effects on Brown Shrimp, *Penaeus aztecus*, and White Shrimp, *P. setiferus*, Populations in Coastal Waters, Particularly of Texas," 3:9
Zimmerman, Steven T., and James D. Letcher, "The 1985 Subsistence Harvest of Northern Fur Seals, *Callorhinus ursinus*, on St. Paul Island, Alaska," 1:10

Papers in The *Marine Fisheries Review* in 1986

48(1)

"Trawling Efficiency Device: A New Concept for Selective Shrimp Trawling Gear," John W. Watson, John F. Mitchell, and Arvind K. Shah, 1:1-9.
"The 1985 Subsistence Harvest of Northern Fur Seals, *Callorhinus ursinus*, on St. Paul Island, Alaska," Steven T. Zimmerman and James D. Letcher, 1:10-14.
"The Tuna Industry in the Pacific Islands Region: Opportunities for Foreign Investment," David J. Doulman, 1:15-23.
"Pen Rearing Pacific Salmon, *Oncorhynchus* spp., in San Francisco Bay," William S. Leet, Roger E. Green, and Daniel Ralph, 1:24-31.
"Impact of U.S. Wholesale Demand for Canned Sardines on Market Accessibility of Potential Gulf of Mexico Products," Myles Raizin and Lloyd Regier, 1:32-36.

48(2)

"Lobsters—Identification, World Distribution, and U.S. Trade," Austin B. Williams, 2:1-36
"A Mechanical Device to Sort Market Squid, *Loligo opalescens*," A. Booman and R. Paul Singh, 2:37-43.
"Characterization of Proteolytic and Collagenolytic Psychrotrophic Bacteria of Ice-Stored Freshwater Prawn, *Macrobrachium rosenbergii*," R. J. Premaratne, W. K. Nip, and J. H. Moy, 2:44-47.

48(3)

"National Marine Fisheries Service Habitat Conservation Efforts in the Southeast Region of the United States From 1981 Through 1985," Andreas Mager, Jr., and Gordon W. Thayer, 3:1-8.
"Inshore Environmental Effects on Brown Shrimp, *Penaeus aztecus*, and White Shrimp, *P. setiferus*, Populations in Coastal Waters, Particularly of Texas," Zoula P. Zein-Eldin and Maurice L. Renaud, 3:9-19.
"Status of Data Sources on Fish Consumption in the United States," D. J. Wagstaff, M. Meaburn, M. Bolger, S. Conrath, and B. Hackley, 3:20-23.
"The Resurgence of the U.S. Swordfish Market," Douglas W. Lipton, 3:24-27.
"U.S. Tuna Trade Summary, 1984," Samuel F. Herrick, Jr., and Steven J. Koplin, 3:28-37.
"Irradiation and Potassium Sorbate Compared as Preservation Treatments for Atlantic Cod, *Gadus morhua*," J. J. Licciardello, E. M. Ravesi, and D. L. D'Entremont, 3:38-41.
"Microbiological Air Quality Assessment of Seafood Plants as Impacted by Solid Waste," Donn R. Ward and Debra J. O. Hopson, 3:42-45.
"Estimating Total Length of Headless White Hake, *Urophycis tenuis*, Landed in Maine," Edwin P. Creaser and Kerry M. Lyons, 3:46-49.
"Estimating Total Length of Headless Anglerfish, *Lophius americanus*, Landed in Maine," Kerry M. Lyons and Edwin P. Creaser, 3:50-53.

48(4)

"Ciguatera: A Legal and Social Overview," David W. Nellis and Geoffrey W. Barnard, 4:2-5.
"Epidemiology and Impact of Ciguatera in the Pacific: A Review," Nancy Davis Lewis, 4:6-13.
"Identification and Epidemiological Analysis of Ciguatera Cases in Puerto Rico," G. Escalona de Motta, J. F. Feliu, and A. Izquierdo, 4:14-18.
"The Chemical Nature of Scaritoxin," Yong-Goe Joh and Paul J. Scheuer, 4:19-22.
"Resolution of Ciguatera-Associated Toxins using High-Performance Liquid Chromatography (HPLC)," Thomas B. Higerd, John A. Babinchak, Paul J. Scheuer, and David J. Jollow, 4:23-28.
"An HPLC-Fluorescence Method For Identifying a Toxic Fraction Extracted From the Marine Dinoflagellate *Gambierdiscus toxicus*," L. V. Sick, D. C. Hansen, J. A. Babinchak, and T. B. Higerd, 4:29-34.
"Response of Mice to *Gambierdiscus toxicus* Toxin," Bonnie A. Kelley, David J. Jollow, Edwin T. Felton, Michael S. Voegtline, and Thomas B. Higerd, 4:35-37.
"Thecal Analysis of the Tropical Benthic Dinoflagellate *Gambierdiscus toxicus*," Alfred R. Loeblich III and Stephen R. Indelicato, 4:38-43.
"Identification of the Photosynthetic Pigments of the Tropical Benthic Dinoflagellate *Gambierdiscus toxicus*," Stephen R. Indelicato and David A. Watson, 4:44-47.
"*Gambierdiscus toxicus* from the Caribbean: A Source of Toxins Involved in Ciguatera," Joseph P. McMillan, Patricia A. Hoffman, and H. Ray Granade, 4:48-52.
"Toxin Production by *Gambierdiscus toxicus* Isolated From the Florida Keys," John A. Babinchak, David J. Jollow, Michael S. Voegtline, and Thomas B. Higerd, 4:53-56.
"Comparative Toxicity of *Gambierdiscus toxicus*, *Ostreopsis* cf. *lenticularis*, and Associated Microflora," T. R. Tosteson, D. L. Ballantine, C. G. Tosteson, A. T. Bardales, H. D. Durst, and T. B. Higerd, 4:57-59.
"Economic Aspects of the Japanese Kamaboko Industry," Myles Raizin and Lloyd Regier, 4:60-64.
"Products and Markets for Small Louisiana Shrimp," Perry W. Pawlyk and Kenneth J. Roberts, 4:65-70.